

General

Title

Heart failure in adults: percentage of heart failure patients who are current smokers or tobacco users who received smoking cessation advice or counseling in primary care.

Source(s)

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of heart failure patients age 18 years and older who are current smokers or tobacco users who received smoking cessation advice or counseling in primary care.

Rationale

The priority aim addressed by this measure is to increase the rate of heart failure patients age 18 years and older who have comprehensive patient education and follow-up care.

Heart failure is a major health problem in the United States (U.S.), and the incidence of the disease is increasing. The overall estimated 2004 prevalence of heart failure in adults age 20 and older in the U.S. was 5.2 million, with it being equally distributed among men and women.

Cigarette smoking increases the incidence of congestive heart failure. As heart failure continues to

increase in prevalence in the U.S., there is a need to look at how to prevent decompensation of previously stable heart failure patients. Several precipitating factors have been suggested in the relapse of heart failure, and one of them includes cigarette smoking.

Research on the participants in the Study of Left Ventricular Dysfunction (SOLVD) showed that current cigarette smoking increased mortality and hospitalization compared to ex-smokers and those who never smoked. Quitting smoking is associated with a significant decrease in risk of all-cause mortality among patients with coronary heart disease. In fact, in patients with left ventricular dysfunction, research on the SOLVD participants showed that quitting smoking substantially decreases morbidity and mortality within two years.

Evidence for Rationale

Critchley JA, Capewell S. Mortality risk reduction associated with smoking cessation in patients with coronary heart disease: a systematic review. JAMA. 2003 Jul 2;290(1):86-97. [63 references] [PubMed](#)

He J, Ogden LG, Bazzano LA, Vupputuri S, Loria C, Whelton PK. Risk factors for congestive heart failure in US men and women: NHANES I epidemiologic follow-up study. Arch Intern Med. 2001 Apr 9;161(7):996-1002. [PubMed](#)

Hunt SA, Abraham WT, Chin MH, Feldman AM, Francis GS, Ganiats TG, Jessup M, Konstam MA, Mancini DM, Michl K, Oates JA, Rahko PS, Silver MA, Stevenson LW, Yancy CW, Antman EM, Smith SC Jr, Adams CD, Anderson JL, Faxon DP, Fuster V, Halperin JL, Hiratzka LF, Jacobs AK, Nishimura R, Ornato JP, Page RL, Riegel B, American College of Cardiology, American Heart Association Task Force on Practice Guidelines, American College of Chest Physicians, International Society for Heart and Lung Transplantation, Heart Rhythm Society. ACC/AHA 2005 guideline update for the diagnosis and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines [trunc]. Circulation. 2005 Sep 20;112(12):e154-235. [PubMed](#)

National Health and Nutrition Examination Survey 1999 to 2004 [NHANES] Data 1999-2004. [internet]. Hyattsville (MD): National Center for Health Statistics;

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

Roger VL, Weston SA, Redfield MM, Hellermann-Homan JP, Killian J, Yawn BP, Jacobsen SJ. Trends in heart failure incidence and survival in a community-based population. JAMA. 2004 Jul 21;292(3):344-50. [PubMed](#)

Suskin N, Sheth T, Negassa A, Yusuf S. Relationship of current and past smoking to mortality and morbidity in patients with left ventricular dysfunction. J Am Coll Cardiol. 2001 May;37(6):1677-82. [PubMed](#)

Primary Health Components

Heart failure; smoking cessation; advice or counseling

Denominator Description

Number of patients age 18 years and older with a diagnosis of heart failure and current smokers or tobacco users (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of patients 18 years and older with a diagnosis of heart failure and current smokers or tobacco users who received counseling or advice on smoking cessation at the last clinic visit

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

- In age 20 to 39, the incidence of heart failure is 0.3% of the population in men and 0.2% of the population in women. In the ages 40s and 50s, the incidence is 2% in men and 1.5% in women. In the 60 to 79 age group, the incidence is 7.2% in men and 5.2% in women. However, once reaching age 80, the incidence of heart failure is higher in women, with 11.6% of men and 12.4% of women.
- Seventy-five percent of heart failure cases have antecedent hypertension in that the lifetime risk for heart failure doubles for people with blood pressure greater than 160/90 versus those with blood pressure less than 140/90. A community-based cohort study conducted in Olmsted County, Minnesota, showed that the incidence of heart failure (International Classification of Diseases, Ninth Revision [ICD9]-428) has not declined during the past two decades, but survival after onset has increased overall, with less improvement among women and elderly persons.

Evidence for Additional Information Supporting Need for the Measure

National Health and Nutrition Examination Survey 1999 to 2004 [NHANES] Data 1999-2004. [internet]. Hyattsville (MD): National Center for Health Statistics;

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

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Extent of Measure Testing

Unspecified

National Guideline Clearinghouse Link

[Heart failure in adults.](#)

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Person- and Family-centered Care

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Data Collection for the Measure

Case Finding Period

The time frame pertaining to data collection is monthly.

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Number of patients age 18 years and older with a diagnosis of heart failure* and current smokers or tobacco users

Data Collection: Query electronic medical records (EMR) for clinic visits within the last month for patients, age 18 years and older, with heart failure diagnosis and are also current smokers or tobacco users.

*International Classification of Diseases, Ninth Revision (ICD-9) codes: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9. (Refer to the table "Descriptions of ICD-9 Codes" in the original measure documentation for code descriptions.)

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of patients 18 years and older with a diagnosis of heart failure and current smokers or tobacco users who received counseling or advice on smoking cessation at the last clinic visit

Exclusions

Unspecified

Numerator Search Strategy

Encounter

Data Source

Administrative clinical data

Electronic health/medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percentage of heart failure patients who are current smokers or tobacco users who received smoking cessation advice or counseling in primary care.

Measure Collection Name

Heart Failure in Adults

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

Composition of the Group that Developed the Measure

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Financial Disclosures/Other Potential Conflicts of Interest

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Where there are work group members with identified potential conflicts, these are disclosed and discussed at the initial work group meeting. These members are expected to recuse themselves from related discussions or authorship of related recommendations, as directed by the Conflict of Interest committee or requested by the work group.

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Disclosure of Potential Conflicts of Interest

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National, Regional, Local Committee Affiliations: None

Guideline Related Activities: None

Research Grants: None

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Guideline Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None
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Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2013 Jul

Measure Maintenance

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature.

Date of Next Anticipated Revision

The next scheduled revision will occur within 24 months.

Measure Status

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2011 Aug. 110 p.

The measure developer reaffirmed the currency of this measure in January 2016.

Measure Availability

Source available for purchase from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#)

. Also available to ICSI members for free at the [ICSI Web site](#)

and to Minnesota health care organizations free by request at the [ICSI Web site](#)

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NQMC Status

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Production

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